REMARKS

The Office Action dated September 9, 2003 has been received and carefully noted. The following remarks are submitted as a full and complete response thereto. Claims 1-56 are presently pending in the above-cited application and are again submitted for consideration.

Formal Drawings are also submitted with this Response. The Formal Drawings incorporate the proposed drawing correction filed June 27, 2003 and approved by the Examiner in the September 9, 2003 Office Action. Acceptance of the Formal Drawings is respectfully requested. No new matter has been added and Applicants respectfully assert that no new issues are being raised which require further consideration and/or search.

Claims 1-56 are presently pending in the above-cited application and have been examined. Additionally, the Office indicated that claims 1-21 and 27-51 have been allowed. Applicants wish to thank the Examiner for the allowance of the above claims. Claims 22-26 and 52-55 are respectfully submitted for consideration.

Claims 22-25 and 52-55 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Pepper* (U.S. Patent No. 4,713,607) in view of *Eastman* (U.S. Patent No. 720,335). Claims 26 and 56 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Pepper* in view of *Eastman* and *Fried et al.* (U.S. Patent No. 6,023,138). Claims 22 and 52 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Minneman et al.* (U.S. Patent No. 5,368,188) in view of *Eastman.*

Claims 23-25 and 53-55 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Minneman et al.* in view of *Eastman* and "Using PCB as a Current Shunt", Electronics World and Wireless World. The rejections of claims are respectfully traversed according to the remarks that follow.

The present invention is directed, according to claim 22, to a system for measuring core power of a circuit on a printed circuit board (PCB). The system includes a first circuit, a power plane feeding the first circuit, a power strip disposed in the PCB connecting a first power supply to the power plane and having at least two vias for measuring a voltage drop, and a second circuit configured to measure a first voltage drop across the power strip as a first voltage, a temperature of the power strip, and perform a power calculation by calculating the power being consumed by the first circuit based on the first voltage and the temperature. Claims 23-25 are dependent upon claim 22.

The present invention is directed, according to claim 52, to a system for measuring core power of a circuit on a printed circuit board (PCB). The system includes a first circuit, a power plane means for feeding the first circuit, a power strip means disposed in the PCB for connecting a first power supply to the power plane and having at least two means for measuring a voltage drop and a calculating means for measuring a first voltage drop across the power strip means as a first voltage, for measuring a temperature of the power strip means, and for performing a power calculation by calculating the power being fed to the first circuit based on the first voltage and the temperature. Claims 53-55 are dependent upon claim 52.

Independent claims 22 and 52 recite, in part, "measure . . . a temperature of said power strip" or "calculating means for measuring . . . a temperature of said power strip means." Applicants respectfully assert that none of the cited prior art references teach or suggest all of the elements of any of claims 22-26 and 52-56, as discussed below.

In all of the rejections of the claims, one of two base references was applied: *Pepper* and *Minneman et al.* *Pepper* is directed to a current sensing circuit senses current and signals if such current exceeds a predetermined level within an etched circuit board. *Minneman et al.* is directed to a circuit and method of measuring current within a circuit without breaking the circuit. The Office Action acknowledges many of the deficiencies of those references, as applied to the claims; specifically the Office Action acknowledges that neither *Pepper* nor *Minneman et al.* teaches measuring a temperature of the power strip and counting the temperature effect into a calibration of resistance.

With respect to the independent claims, claims 22 and 52 recite the use and measurement of temperature and the Office Action relies upon *Eastman* in an attempt to cure the deficiencies noted above. *Eastman* is directed to an arrangement for compensating for the variation in the resistance of the measuring instrument and the conductor caused by variations in temperature. Although the Office Action applies *Eastman* in an attempt to cure the deficiencies of *Pepper* and *Minneman et al.*, *Eastman* does not teach or suggest what it has been alleged to teach or suggest, and therefore does not cure the deficiencies in *Pepper* and/or *Minneman et al.*

Independent claims 22 and 52 recite, in part, "measure . . . a temperature of said power strip" or "calculating means for measuring . . . a temperature of said power strip means." While *Eastman* does disclose compensating for temperature, it does not teach or suggest measuring a temperature. These are significantly different concepts. Given the arrangement in *Eastman*, no measurement of temperature is needed and it is not contemplated therein.

Turning to the "Response to Arguments" section of the last Office Action, the Office appears to assert that one of ordinary skill in the art would have been motivated "to compensate for resistance variations caused by temperature variations, . . . by measuring a temperature if the power strip." However, a teaching of compensation does not lead one of ordinary skill in the art to measure the temperature. An analogous example could be made from everyday experience. If one was cooking an item, with the item being defrosted or not, it is not necessary for one to measure the actual temperature of the item in order to compensate for its cooking based on the state of the item. Likewise, *Eastman* could arguable teach or suggest that temperature variations may be compensated for, but the combination of *Eastman* with *Pepper* or *Minneman et al.* could possibly teach compensating for temperature variations, not measurement of temperature.

With respect to a possible combination of *Eastman* with *Pepper* or *Minneman et al.*, other means of compensation could be utilized that would not require the measurement of temperature. Such possible variations could include having a temperature value be entered into the computing means by a person or by trying different

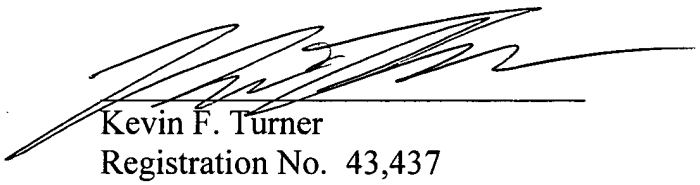
compensation methods and allowing for the best compensation method to be selected. As such, Applicants respectfully assert that the compensation for temperature variations does not necessarily connote the measurement of temperature.

Additionally, one of ordinary skill in the art would not be motivated to measure a temperature of the power strip in view of *Eastman* or the other references cited in the Office Action. The mere compensation for temperature would not meet the requirements of claims 22 and 52 and, given the other elements contained in those claims, the compensation would not allow for the temperature to be used in the apparatus of the present invention. For at least this reason, Applicants respectfully assert that the rejections of claims 22 and 52 are improper for failing to teach or suggest all of the elements of those claims. The rejection of claims 23-26 and 53-56 would likewise be improper for at least their dependence on independent claims 22 and 52. Reconsideration and withdrawal of the rejection of those claims are respectfully requested.

As such, given the allowance of claims 1-21 and 27-51, Applicants respectfully assert that claims 1-56 should now be allowed and that the application should be allowed to proceed to issue. If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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